



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,570	04/07/2005	Heino Foersterling	123209	8991
25944 7590 06/24/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
BURCH, MELODY M				
ART UNIT		PAPER NUMBER		
3657				
MAIL DATE		DELIVERY MODE		
06/24/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/530,570

Applicant(s)

FOERSTERLING ET AL.

Examiner

Melody M. Burch

Art Unit

3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/28/09 has been entered.

Specification

2. The disclosure is objected to because of the following informalities: line 4 of pg. 1 of the specification refers to cancelled claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14-22 and 24-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claim 14. The phrase "a pressure medium" in the last line of claim 14 is indefinite since it is unclear to the Examiner whether the pressure medium recited in the last line of the claim is intended to be the same or different from the fluid recited earlier. The remaining claims are indefinite due to their dependency from claim 14.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14-16, 19, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten and US Patent 5947240 to Davis et al.

Re: claims 14-16, 19, 20, and 22. JP'403 shows in figure 1 a damping device comprising a differential cylinder c having a cylinder chamber b and a piston side ring chamber a, a tank I, two hydraulic units P1, P2, and an electric motor M associated to the hydraulic units, wherein the first hydraulic unit P2 is arranged in a first medium flow path between the tank and the ring chamber and fluid in the first flow path flows from the tank into the ring chamber and the second hydraulic unit P1 is arranged in a second pressure medium flow path between the ring chamber and the cylinder chamber whereby the first and/or the second pressure medium flow path is flowable through by a pressure medium in both directions.

JP'403 lacks the limitation of a hydraulic accumulator.

Achten teaches in col. 4 lines 35-36 and in the figure on the front of the patent the use of a piston cylinder device including a hydraulic accumulator 64.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403 to have included a hydraulic accumulator, as taught by Achten, in order to provide a means of accommodating fluid temperature variations.

JP'403, as modified, is silent with regards to the piston side ring chamber being a piston rod side ring chamber.

Davis et al. teach the use of chambers on both side of piston being piston rod side ring chambers by virtue of rods 56 and 58.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the ring chamber of JP'403, as modified, to have been a piston rod side ring chamber, as taught by Davis et al., in order to provide a means of avoiding the need to include a rod-volume compensating means.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten and Davis et al. as applied to claim 15 above, and further in view of US Patent 6216456 to Mitchell.

JP'403, as modified, describes the invention substantially as set forth above, but is silent with regards to a pressure transducer for one of the cylinders.

Mitchell teaches the use of a pressure transducer 72 or 74 for measuring a pressure prevailing in one of the chambers of the piston-cylinder device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403, as modified, to have included a pressure transducer, as taught by Mitchell, in order to

provide a means of actively controlling the damping capacity depending on the pressure data from the transducer.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten and Davis et al. as applied to claim 15 above, and further in view of US Patent 5810125 to Gezari.

JP'403, as modified, describes the invention substantially as set forth above, but is silent with regards to a pressure transducer for the hydraulic accumulator.

Gezari teaches the use of an accumulator pressure sensor 34.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403, as modified, to have included a pressure transducer, as taught by Gezari, in order to provide a means of actively controlling the damping capacity depending on the pressure data from the transducer.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten and Davis et al. as applied to claim 14 above, and further in view of US Patent 5988330 to Morris.

JP'403, as modified, describes the invention substantially as set forth above, but is silent with regards to the piston being fixedly mounted and the cylinder jacket of the cylinder being guided in an axially displaceable manner.

Morris teaches in col. 7 lines 50-53 the use of either the piston being fixed and the cylinder being axially guided or vice versa.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder arrangement to have included the piston being fixed and the cylinder being movable, as taught by Morris, in order to provide a functionally equivalent means of effecting movement resulting in damping.

10. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten and Davis et al. as applied to claim 14 above, and further in view of US Patent 5706919 to Kruckemeyer et al.

JP'403, as modified, is silent with regards to the ring chamber being sealed with a gap seal.

Kruckemeyer et al. teach in figure 1 the use of a gap seal 37 that seals one chamber against the external environment and/or against the other chamber.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston of JP'403, as modified, to have included a gap seal, as taught by Kruckemeyer et al., in order to provide a means of fluidly separating the ring chamber from the cylinder chamber to ensure proper operation of the damping device.

11. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten and Davis et al. as applied to claim 14 above, and further in view of US Patent 6705440 to Phelan et al.

JP'403, as modified, is silent with regards to the cable stayed bridge containing the damper.

Phelan et al. teach in col. 3 lines 66-67 the use of cable stayed bridges containing dampers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the use of the damper of JP'403, as modified, in the environment of a cable stayed bridge, as taught by Phelan et al., in order to provide damping to enhance a driver's ride over a bridge.

Response to Arguments

12. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb
June 20, 2009

/Melody M. Burch/
Primary Examiner, Art Unit 3657